# NATIONAL BUREAU OF STANDARDS REPORT

10 206

Operation Breakthrough
Preliminary Report

# EXISTING BUILDING AND DEVELOPMENTAL REGULATIONS IN KALAMAZOO, MICHIGAN

Sponsored by
Department of Housing
and Urban Development



U.S. DEPARTMENT OF COMMERCE NATIONAL BUREAU OF STANDARDS

#### NATIONAL BUREAU OF STANDARDS

The National Bureau of Standards was established by an act of Congress March 3, 1901. Today, in addition to serving as the Nation's central measurement laboratory, the Bureau is a principal focal point in the Federal Government for assuring maximum application of the physical and engineering sciences to the advancement of technology in industry and commerce. To this end the Bureau conducts research and provides central national services in four broad program areas. These are: (1) basic measurements and standards, (2) materials measurements and standards, (3) technological measurements and standards, and (4) transfer of technology.

The Bureau comprises the Institute for Basic Standards, the Institute for Materials Research, the Institute for Applied Technology, the Center for Radiation Research, the Center for Computer Sciences and Technology, and the Office for Information Programs.

THE INSTITUTE FOR BASIC STANDARDS provides the central basis within the United States of a complete and consistent system of physical measurement; coordinates that system with measurement systems of other nations; and furnishes essential services leading to accurate and uniform physical measurements throughout the Nation's scientific community, industry, and commerce. The Institute consists of an Office of Measurement Services and the following technical divisions:

Applied Mathematics—Electricity—Metrology—Mechanics—Heat—Atomic and Molecular Physics—Radio Physics <sup>2</sup>—Radio Engineering <sup>2</sup>—Time and Frequency <sup>2</sup>—Astrophysics <sup>2</sup>—Cryogenics.<sup>2</sup>

THE INSTITUTE FOR MATERIALS RESEARCH conducts materials research leading to improved methods of measurement standards, and data on the properties of well-characterized materials needed by industry, commerce, educational institutions, and Government; develops, produces, and distributes standard reference materials; relates the physical and chemical properties of materials to their behavior and their interaction with their environments; and provides advisory and research services to other Government agencies. The Institute consists of an Office of Standard Reference Materials and the following divisions:

Analytical Chemistry—Polymers—Metallurgy—Inorganic Materials—Physical Chemistry. THE INSTITUTE FOR APPLIED TECHNOLOGY provides technical services to promote the use of available technology and to facilitate technological innovation in industry and Government; cooperates with public and private organizations in the development of technological standards, and test methodologies; and provides advisory and research services for Federal, state, and local government agencies. The Institute consists of the following technical divisions and offices:

Engineering Standards—Weights and Measures — Invention and Innovation — Vehicle Systems Research—Product Evaluation—Building Research—Instrument Shops—Measurement Engineering—Electronic Technology—Technical Analysis.

THE CENTER FOR RADIATION RESEARCH engages in research, measurement, and application of radiation to the solution of Bureau mission problems and the problems of other agencies and institutions. The Center consists of the following divisions:

Reactor Radiation—Linac Radiation—Nuclear Radiation—Applied Radiation.

THE CENTER FOR COMPUTER SCIENCES AND TECHNOLOGY conducts research and provides technical services designed to aid Government agencies in the selection, acquisition, and effective use of automatic data processing equipment; and serves as the principal focus for the development of Federal standards for automatic data processing equipment, techniques, and computer languages. The Center consists of the following offices and divisions:

Information Processing Standards—Computer Information — Computer Services — Systems Development—Information Processing Technology.

THE OFFICE FOR INFORMATION PROGRAMS promotes optimum dissemination and accessibility of scientific information generated within NBS and other agencies of the Federal government; promotes the development of the National Standard Reference Data System and a system of information analysis centers dealing with the broader aspects of the National Measurement System, and provides appropriate services to ensure that the NBS staff has optimum accessibility to the scientific information of the world. The Office consists of the following organizational units:

Office of Standard Reference Data—Clearinghouse for Federal Scientific and Technical Information —Office of Technical Information and Publications—Library—Office of Public Information—Office of International Relations.

Headquarters and Laboratories at Gaithersburg, Maryland, unless otherwise noted; mailing address Washington, D.C. 20234.

<sup>&</sup>lt;sup>2</sup> Located at Boulder, Colorado 80302.

<sup>&</sup>lt;sup>3</sup> Located at 5285 Port Royal Road, Springfield, Virginia 22151.

# NATIONAL BUREAU OF STANDARDS REPORT

**NBS PROJECT** 

**NBS REPORT** 

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May 15, 1970

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Operation Breakthrough

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# EXISTING BUILDING AND DEVELOPMENTAL REGULATIONS IN KALAMAZOO, MICHIGAN

by
The Building Research Division Team
E. O. Pfrang, Manager

Sponsored by Department of Housing and Urban Development

IMPORTANT NOTICE

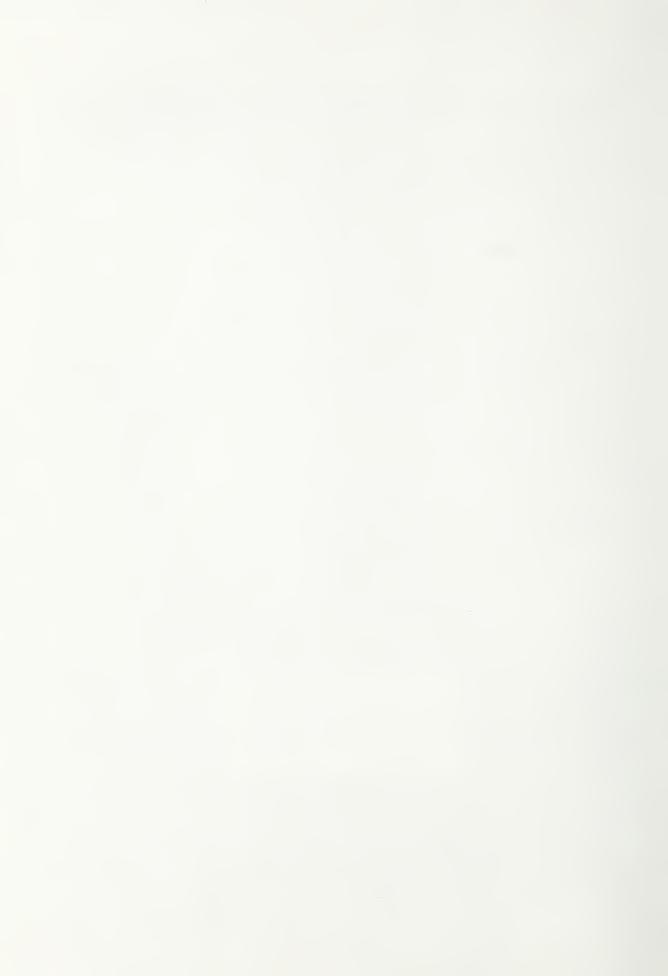
NATIONAL BUREAU OF ST/ for use within the Government. and review. For this reason, the whole or in part, is not authori Bureau of Standards, Washingto the Report has been specifically

Approved for public release by the director of the National Institute of Standards and Technology (NIST) on October 9, 2015

s accounting documents intended subjected to additional evaluation listing of this Report, either in Office of the Director, National y the Government agency for which ppies for its own use.



U.S. DEPARTMENT OF COMMERCE NATIONAL BUREAU OF STANDARDS



#### INTRODUCTION

This report lists the regulatory documents that apply to the

Department of Housing and Urban Development Operation Breakthrough

site in Kalamazoo, Michigan; the documents themselves, insofar

as they are obtainable, are also furnished. The report's overall

content is indicated by its Table of Contents:

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#### REGULATORY DOCUMENTS

Included in the following list are the offices from which the documents are available as well as the documents' costs, if any, should additional copies be required.

Uniform Building Code, 1967 Edition

The International Conference of Building Officials 50 South Los Robles Pasadena, California 91101

2 Building Code Ordinance, May 13, 1968

City Treasurer City of Kalamazoo Kalamazoo, Michigan 49006

3 Kalamazoo Plumbing Code, 1963 Edition

City Treasurer City of Kalamazoo Kalamazoo, Michigan 49006

4 Michigan State Plumbing Code

State of Michigan Board of Plumbing Department of Licensing and Regulation 1033 S. Washington Avenue Lansing, Michigan 48910

(Price: \$2)

Kalamazoo Electrical Code, 1969 Edition

City Treasurer City of Kalamazoo Kalamazoo, Michigan 49006

6 National Electrical Code, 1968 Edition

The National Fire Protection Association 60 Batterymarch Street Boston, Massachusetts 02110

(Price \$2)



Kalamazoo Mechanical Code

The City Treasurer City of Kalamazoo Kalamazoo, Michigan 49006

8 Michigan Elevator Laws and Regulations

Michigan Department of Labor Bureau of Safety and Regulation 300 E. Michigan Avenue Lansing, Michigan 48933

9 Zoning Ordinance, Division 3 of Compiled Ordinances, City of Kalamazoo

City Treasurer
City of Kalamazoo

Operation Breakthrough Acct. No. 293.877

(Price: \$5) Kalamazoo, Michigan 49006

"City of Kalamazoo Base Map"
"Bound Collection of Maps & Photos"
"Land Use Plan"

City Treasurer City of Kalamazoo

(Price: \$1 each)

\$15.00/set)

Operation Breakthrough Acct. No. 293.877

Kalamazoo, Michigan 49006

11 Kalamazoo Sign Ordinance and Addenda

City Treasurer City of Kalamazoo Operation Breakthrough Acct. No. 293.877 Kalamazoo, Michigan 49006

2 Swimming Pool Ordinance

City Treasurer City of Kalamazoo Operation Breakthrough Acct. No. 293.877 Kalamazoo, Michigan 49006



Minimum Standards for Housing - Ordinance No. 696, Revised 1969

City Treasurer City of Kalamazoo Operation Breakthrough Acct. No. 293.877 Kalamazoo, Michigan 49006

14 City Utilities Service Rates and Regulations

City Treasurer City of Kalamazoo Operation Breakthrough Acct. No. 293.877 Kalamazoo, Michigan 49006

Standard Specifications for the Layout and Construction of Driveway Approaches and Related Areas, Ordinance No. 682

City Treasurer City of Kalamazoo Operation Breakthrough Acct. No. 283.877 Kalamazoo, Michigan 49006

16 Boiler Law and Rules and Regulations

Bureau of Safety and Regulation Michigan Department of Labor Boiler Division 300 E. Michigan Ave. Lansing, Michigan 48933

(Price: \$2)

"Act and Rules for Air Pollution Control" and "Occupational Air Contaminants and Physical Agents"

Michigan Department of Public Health Air Pollution Section Lansing, Michigan 48933



#### COMMENTARY ON REGULATIONS

Note 1: The several regulatory codes applicable to this site, and included herewith, together with such other generally recognized codes and standards as may be referenced in them will furnish the housing system producer and/or the site developer with all of the requirements for usual housing construction on the site. These may be subject to waiver procedures to the extent the proposed housing system is at variance with the existing requirements.

## General

Enforcement of the building, plumbing, electrical, mechanical and housing codes is the responsibility of the City's Department of Buildings. Zoning is handled by the City Department of Planning. Elevator requirements are handled by the Michigan Department of Labor.

Regulations concerning safety in construction are handled by a State agency.

Sign, swimming pool, standpipe and gas piping regulations are processed by the Department of Buildings in Kalamazoo.

Water service (including meters), sanitary and storm sewers, street construction and street lighting regulations are handled by the Public Works Department of Kalamazoo.

Permits to initiate any new construction work in the City of Kalamazoo are obtainable from the Department of Buildings. Permits to move large pieces of equipment or oversized loads over highways must be obtained from the State Highway Department. Within the City, such permits involve several departments but can be obtained from the Department of Buildings.

Residential builders are now required to be licensed by the State. Firms and individuals doing plumbing, electrical and mechanical work are required to be licensed. Plumbing and electrical licenses can be obtained from the State, but mechanical licenses must be obtained from the City. Plans and specifications for residential units, haveing over 3,500 square feet floor area, must be prepared by an architect and/or engineer licensed in the State of Michigan.



# Planning and Zoning

The Breakthrough site is in Zone 7 - Dwelling--Apartment District. Commercial type structures would require a special exemption.

Planned Unit Developments are provided for in the <u>Compiled Zoning</u> Ordinances of the <u>City of Kalamazoo</u>.

# Building Code

The City of Kalamazoo has adopted the 1967 Edition of the Uniform Building Code. The adoption ordinance describes the modifications made to this model code. Plans are underway to adopt the 1970 Edition of the Uniform Building Code.

### Electrical Code

It is necessary to use the 1968 Edition of the National Electrical Code in conjunction with the 1969 Edition of the Kalamazoo Electrical Code in order to ascertain the City's electrical requirements and acceptable solutions. Changes made to the National Electrical Code are specified in the Kalamazoo Electrical Code.

Electrical contractors can be licensed by the City of Kalamazoo providing they live in the city. However, the City will accept licenses given at the State level.

# Plumbing Code

The Kalamazoo Plumbing Code of 1963 is a variation of the State Plumbing Code. The State law requires that all plumbing work must be performed by a master or journeyman plumber duly licensed by the State. The City further requires that all plumbing inspection work must be performed by a person who has held a State license for at least 10 years.

A State Plumbing Board letter No. 68-1, dated September 1968, describes the limited approval given PVC and ABS DWV piping materials.

#### Elevator Code

Plans and specifications involving elevators are received by the Kalamazoo Department of Buildings, who send them on to the Michigan Department of Labor, Bureau of Safety and Regulation in Lansing, Michigan. Plan review and subsequent inspections are conducted by the State agency.



#### Mechancial Code

Firms and/or individuals designing and/or installing heating, ventilating and air conditioning equipment must be licensed by the City of Kalamazoo.

Plans for buildings that require boilers are subject to rules, regulations and inspections, administered by the Michigan Department of Labor.

Incinerators are covered by the Kalamazoo Mechanical Code.

# Appeals

Appeals relative to code variances and interpretations are heard by separate appeal boards for each of the major code areas (building, plumbing, electrical, mechanical, zoning, housing, etc.). The zoning and housing appeal Boards meet on a regularly scheduled basis, but the other Boards meet on call.

USCOMM-NBS-DC



# ADMINISTRATION--KALAMAZOO, MICHIGAN

Population (1960): 82,000

Metropolitan area population: 170,000

Government: Mayor and City Commission

### Codes

Building
Plumbing
Electrical
Mechanical
Housing
Sign Ordinances
Swimming Pool Ordinances

Mr. Gaylord C. Dowd, P.E. Director of Inspections Department of Buildings City of Kalamazoo

241 W. South Street

Kalamazoo, Michigan 49006 (616) 345-7111 X256

or

Mr. Ted Ray, Assistant Director

Zoning

Gerald J. Jamriska, Director Department of Planning 241 W. South Street

Kalamazoo, Michigan 49006 (616) 345-7111 X220

Elevator

Mr. Don Wiseman

Chief, Elevator Division

Bureau of Safety and Regulations Michigan Department of Labor

300 E. Michigan Avenue

Lansing, Michigan 48933 (517) 373-3566

Boiler Regulations

Mr. Kenneth Fields Chief, Boiler Division

Bureau of Safety and Regulation Michigan Department of Labor

300 E. Michigan Avenue

Lansing, Michigan 48933 (517) 373-3566

Air Pollution Regulations

Mr. B. P. Bloomfield, Chief Air Pollution Section

Michigan Department of Public Health Lansing, Michigan 48933 (517) 373-1410



Septic Tank Regulation

County Health Department 418 W. Kalamazoo Avenue Kalamazoo, Michigan 49006

Special assistance regarding State Regulations can be obtained from:

Richard Helmbrecht Administrative Assistant to Governor Room 101 Capitol Building Lansing, Michigan (517) 373-2642

James A. Roberts Michigan State Housing Development Authority 3110 Book Building Detroit, Michigan 48233 (313) 222-8408

State Highway Load Restrictions

Fred Sanborn Urban Development Officer State Highway Department Lansing, Michigan (517) 373-2233





